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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,576

09/29/2004

Kazunori Kataoka

2004-1545A

2488

513 7590 06/04/2007
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EXAMINER

HAQ, SHAFIQUL

ART UNIT

PAPER NUMBER

1641

MAIL DATE

DELIVERY MODE

06/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/509,576	Applicant(s) KATAOKA ET AL.	
	Examiner Shafiqul Haq	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/12/07 has been entered.
2. Applicant's amendments filed January 29, 2007 is acknowledged and entered.
3. Claims 1-4 and 6-18 are pending.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-4 and 6-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 1 is vague and indefinite because claim 1 has two definitions for X. In lines 7-8, X is defined as a functional group or functional moiety capable of binding directly to a biosensor chip surface. However, in line 24, X is defined as a residue of a member forming a biological specific binding pair.

Therefore, it is not clear what applicant is intended to encompass in this claim.

Specification (lines 30-35) describes biological specific binding pair as follows:

"Biological molecules which are the object of detection by bioassays intended by the invention may be one of the constituents of a "biological"

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specific binding pair (e.g. those formed by hydrophobic binding, ionic binding or the like of biological molecules), more specifically, either one of the constituents of non-covalently bound pair such as a ligand and receptor, for example, antigen or hapten and antibody, sugar and lectin, substrate and enzyme, hormone and receptor thereof, oligonucleotide and complementary chain thereof, biotin and avidin or streptavidins, etc.”

Therefore, the “the functional group or functional moiety capable of binding directly to a biosensor chip surface” is different from the “residue of forming a biological specific binding pair” and thus the claim is unclear as well as confusing for conflicting definition of “X”.

7. With regard to claim 4, the groups selected for “L” are disclosed as terminal groups (i.e. only one bond is shown), while “L” is not a terminal group.
8. Claim 10 is indefinite for the same reason as described above for definition of “X”. Claim 10 is vague and indefinite because claim 10 has two definitions for X. In lines 7-8, X is defined as a functional group or functional moiety capable of binding directly to a biosensor chip surface. However, in line 19, X is defined as a residue of a member forming a biological specific binding pair.

Therefore, it is not clear what applicant is intended to encompass in this claim.

Allowable Subject Matter

9. Claims 1 and 10 and their dependent claims 2-4 and 6-9 and 11-8 would be would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Response to Argument

10. Applicant's amendments and arguments filed 1/29/07 have been fully considered, and are persuasive to overcome the rejections under 35 USC 35 USC 103 but, However, Applicants' amendments and further review necessitated new ground of rejections under 35 USC 112, second paragraph.


Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shafiqul Haq whose telephone number is 571-272-6103. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SHAFIQUL HAQ
EXAMINER
ART UNIT 1641


LONG V. LE 05/29/07
SUPERVISORY PATENT EXAMINER
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